Washington Department of Ecology
Hazardous Waste & Toxics Reduction Program
Compliance Report

Site:	**EcoLab Inc. EPA/State ID Number: WAH000056860**
Inspection Date:	April 23, 2019
Site Contacts:	Michael Carette-Meyers, Regional Manager – SPS Western US
Phone:	(253) 306-6828 Email: michael.carette-meyers@ecolab.com
Site Location:	401 East Alexander Ave, Lot #1 Tacoma, WA 98421
Website:	https://www.ecolab.com
At This Site Since:	April 2015
Current Site Status:	Large Quantity Generator

Ecology

Lead Contact: Ron Kaufmann Phone: (360) 407-6362 Email: ron.kaufmann@ecy.wa.gov
Other Representatives: Ian Tracy, HWTR-SWRO
Report Date: June 18, 2019
Report By: Ron Kaufmann

Ronald Kaufmann (Signed) 6/18/2019 (Date)

Facility Background:

Ecolab has operated at this site since April 2015, according to Michael Carette-Meyers, Ecolab's regional manager for the Western United States. This facility was formerly operated by Food Protection Services before being purchased by Ecolab in 2017. Ecolab is an international provider of water, food sanitation services, and energy technologies. It was founded as Economics Laboratory in 1923, according to the company's website. Ecolab's Tacoma location provides fumigation services for imported and exported food products and goods. Michael Carette-Meyers, told us they employ nine staff, including himself, at this location.

Ecolab has not notified as a generator, transporter, or as a treatment facility of dangerous waste at this location. Ecology implemented the notification.

This was the first hazardous waste compliance evaluation inspection conducted by Ecology at Ecolab.

Inspection Summary:

We conducted this routine unannounced compliance evaluation inspection in response to environmental response tracking system (ERTS) complaint # 687921 and to ensure compliance with standards for dangerous waste generators (Chapter 173-303 WAC). On March 19, 2019, Ecology's Spills Program responded to a chemical fire at Ecolab, which initiated ERTS # 687921. For information on their incident response, see the spill program integrated information system (SPIIS) incident detail report # 104963. Ian Tracy and I, Ron Kaufmann, arrived at 10:41 a.m. and were greeted by Michael Carette-Meyers. This inspection was pre-arranged due to the uncertainty of Ecolab personnel being available on location when we arrived. Michael Carette-Meyers and Trevor Goldsberry, both of whom were present during the March 19, 2019 incident, were available to escort us through the facility and answer questions.

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Michael Carette-Meyers and Trevor Goldsberry explained the following about the March 19, 2019 event:

- Ecolab deployed aluminum phosphide on a ship in December 2018 in Longview, WA. After the fumigant was deployed, the ship was seized by creditors.
- The ship was released in March 2019, and Ecolab was asked to retrieve the aluminum phosphide that had been deployed in December 2018.
- Trevor Goldsberry retrieved the aluminum phosphide and transported it in an Ecolab pick-up truck from Longview, WA to Ecolab's Port of Tacoma facility.
- Trevor Goldsberry said that the aluminum phosphide that was retrieved looked like a gray powder.
- Approximately 50 pounds of aluminum phosphide, or 10 socks worth, was placed in each dry deactivation drum.
- When the fire department responded and tried to extinguish the fire, the water caused the aluminum phosphide to react more violently and catch fire.

Based on waste streams discussed, amount of waste observed, and the treatment activities that were actively occurring on-site, Ecology inspected Ecolab as a large quantity generator (LQG) and unpermitted treatment, storage, and disposal (TSD) facility of dangerous waste.

Michael Carette-Meyers told us the following about the facility's processes and waste streams:

- The majority of fumigation occurs off-site on vessels (cargo/container ships) and food processing facilities.
- Ecolab does hundreds of fumigation jobs per month.
- Some fumigation of goods and items being prepared for export occur on-site.
- United States Department of Agriculture (USDA) or Washington State Department of Agriculture are required to supervise fumigation events that use methyl bromide as the active pesticide ingredient.
- USDA inspectors are given office space to run in-situ monitoring equipment to ensure proper pesticide application concentrations and time limits are met. Monica Little, a Plant Health Safeguarding Specialist with USDA, was present at the time of inspection and was monitoring the application of methyl bromide to two shipping containers.
- USDA is typically here daily to at least once a week, depending on the amount of fumigations requiring oversight.
- Ecolab personnel wear gas specific monitoring devices that correspond to the type of pesticide being applied. When the low level alarm sounds, Ecolab personnel will don respiratory protection, and when the upper alarm sounds, they will evacuate the area. Single gas monitoring devices are calibrated once a year and are stored in an office trailer. The monitoring devices are for the following gases: methyl bromide, sulfuryl fluoride, and phosphine.
- Full-face respirators are provided to vessel crew for goods being shipped under fumigation. New respirators are stored in an office trailer.

- An American flag located south of the facility acts as a windsock and is used to determine wind direction when aerating fumigants on-site.
- The only liquids discharged on-site are sewage and stormwater.

Records Review

We reviewed the following records:

- Pesticide application labels for PH_3, Weevil-cide, Metabrom Q, and Magnaphos.
- Safety data sheets for PH_3, Weevil-cide, Metabrom Q, Magnaphos, and Vap-X.

Site Tour

During the inspection, we looked at the facility's processes, in addition to dangerous waste management practices, generation points, and accumulation areas. We looked for wastes that facility representatives had not yet identified or designated.

We inspected these areas of the facility and made the following observations:

Aluminum Phosphide Storage Container:

- Half of a shipment of product Weevil-cide brand aluminum phosphide fumigant. Aluminum phosphide is typically deployed on vessels to fumigate grain and other food commodities. If the grain is destined for human consumption, the aluminum phosphide is put into cloth sleeves and placed throughout the grain hold. If the grain is intended for animal feed, the aluminum phosphide is placed directly into the grain. Typical deployment for aluminum phosphide is seven to eight days, and has a maximum penetration rate of 10 feet per day.
- Several boxes of product PH_3 aluminum phosphide fumigant. Michael Carette-Meyers said that they carry this brand for one customer who prefers the PH_3 over the Weevil-cide.
- Two small metal containers of magnesium phosphide foil packets. Magnesium phosphide has a much quicker reaction time, becoming completely spent within 72 hours. The magnesium phosphide fumigant is used for specific applications where over-pressurization is not an issue.

Support Equipment Storage Container:

- Two pallets of empty sulfuryl fluoride compressed gas cylinders wrapped in plastic. Michael Carette-Meyers said that there is still residual/trace amounts of sulfuryl fluoride remaining in the cylinders. The empty cylinders are sent to the manufacturer in Woodland, CA. New cylinders are received at a pressure of 300 PSI.

Motor Trailer Storage Container:

- Cardboard containers of empty cylinders of Vap-X, an organophosphate insecticide. The canisters were being prepared to be shipped back to the vendor. Ecolab does not keep Vap-X in stock because the cylinders are rare and the vendor wants them returned as soon as possible to be refilled.
- New recirculating air pumps are stored prior to deployment on vessels. The air pumps reduce the deployment time required for fumigants on vessels that have shorter trips, and some importing countries require forced air recirculation.

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Cylinder Storage Container:

- Empty methyl bromide, phosphine, and sulphuryl fluoride cylinders staged to be shipped back to the vendor.
- Product methyl bromide cylinders. These cylinders were labeled with product information and application instructions.
- Product herbicides that are used occasionally for right of way areas that require security clearances to access.
- Product chemicals including pesticides that were used for restaurant treatments. This Ecolab location no longer services restaurants, but will be sending these to another Ecolab location.
- Ten pallets of product Weevil-cide brand aluminum phosphide. Ecolab received a full shipment, twenty pallets, of Weevil-cide last week. The other ten pallets had already been unloaded into the aluminum phosphide storage container.

Southeast Corner of Lot

- One empty portable diesel tank used to fuel equipment in remote locations. They plan on sending it to another Ecolab location to be reused.
- Equipment trailers staged for deploying equipment at off-site facilities and vessels.
- Eight 55-gallon black metal containers with unsecured lids (photos 1 – 3). The containers were not marked with the contents and were stored on top of wood pallets. Michael Carette-Meyers explained that these were from the clean-up of the aluminum phosphide fire that occurred on March 19, 2019. Michael Carette-Meyers said that these containers were the responsibility of the National Response Corporation (NRC) and was unsure of their contents or how they would be managed.

Southern Corner of Lot

- Five poly IBC style containers with the tops removed. Three of the IBC containers held punctured aluminum phosphide flasks, and the other two IBC containers were empty at the time of the inspection. Michael Carette-Meyers explained that the aluminum phosphide flasks are not rinsed, but are emptied when the contents are deployed at a job site. The lids are removed from the flasks, and the flasks are punctured so that they cannot be reused. The punctured flasks are placed in the open-top IBC containers and allowed to off gas. A single-gas meter is then used to determine if the flasks are finished off gassing and can go for recycling.
- Four 55-gallon black metal containers with holes located near their bottom and customized lids to aid in the dry deactivation of partially spent aluminum phosphide fumigant (photo 5). Two of the containers were labeled as “Danger/Peligro, Poison, under fumigation with Weevil-cide; USED – DEGAS” and were currently being used to dry deactivate aluminum phosphide pellets (photos 4 and 6). The other two containers were labeled as “Empty – not in use” and were empty at the time of the inspection. The aluminum phosphide pellets are left in the dry deactivation process for a minimum of seven days. Two socks worth, or about 10 pounds of aluminum phosphide pellets, were present in both of the active containers. Michael Carette-Meyers said this was representative of a typical amount of aluminum phosphide that is placed in the deactivation process.

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- Two 55-gallon open-top blue metal containers that were each full (approximately 6 inches of freeboard) of water with a 2% soap/surfactant solution (photo 7). Both containers were labeled as "Empty – not in use" and were not located within secondary containment. Michael Carette-Meyers explained that after the aluminum phosphide pellets are removed from the dry deactivation process, the pellets are placed in these two containers to begin the wet deactivation process. The aluminum phosphide pellets are left in the wet deactivation process for a minimum of seven days. Michael Carette-Meyers said this water/soap solution is reused continuously, but that the wastewater could be discharged to the sanitary sewer if needed.
- Ecolab was currently providing fumigation services at Tacoma Transit. The aluminum phosphide pellets would be transported back to Ecolab's facility for wet and dry deactivation.
- Michael Carette-Meyers explained that Ecolab has an agreement with the manufacturer of Weevil-cide to provide treatment for packages of aluminum phosphide that are damaged in-transit. Weevil-cide does not have the facilities located in the United States to treat aluminum phosphide. Damaged aluminum phosphide packages that Ecolab treats can be originally intended for any customer of Weevil-cide, not just Ecolab, and the packages can originate anywhere in the United States. Ecolab's Tacoma facility is one of only a couple of their locations that treat damaged aluminum phosphide packages.

Forklift Storage Container

- Two forklifts were located in this area.
- Product thermometers and propane cylinders were stored in this area.
- A portable steam-cleaning unit was stored in this area. Michael Carette-Meyers said Ecolab steam cleans imported equipment, collects and containerizes the wastewater, and has Emerald pick-up and manage the wastewater.
- No waste was observed within this storage container at the time of the inspection.

Closing Conference

- I requested pesticide application labels and safety data sheets (SDS) for the materials that were observed on-site.

We thanked Michael Carette-Meyers and Trevor Goldsberry for their time and left the facility at 12:10 p.m.

Follow-Up

I received an email from Kim Pyle of Ecolab on April 23, 2019 with the following documents attached:

- VAP-X SDS
- Magnaphos SDS
- Magnaphos application label

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PHOTO LOG

Photographer: Ian Tracy Witness: Ron Kaufmann

Area & Description	Photographs
Photo 1 Southeast Corner of Lot Eight 55-gallon black metal containers with unsecured lids. The containers were not marked with the contents and were stored on top of wood pallets. All eight containers held waste from the March 19, 2019 event.	
Photo 2 Southeast Corner of Lot Close-up of containers in rear of photo 1.	

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Photo 3 Southeast Corner of Lot Close-up of containers shown in photo 1.	
Photo 4 Southern Corner of Lot Contents of one of four 55-gallon black metal containers shown in photo 5. This container was being used to dry deactivate aluminum phosphide at the time of the inspection.	
Photo 5 Southern Corner of Lot Four 55-gallon black metal containers with holes located near their bottom and customized lids to aid in the dry deactivation of partially spent aluminum phosphide fumigant.	

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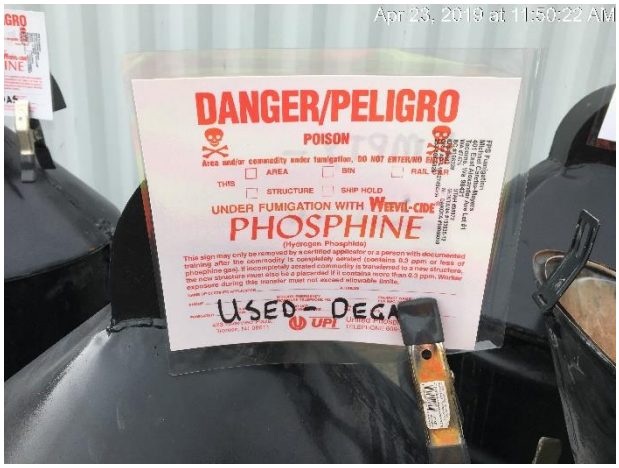
Photo 6 Southern Corner of Lot Sign attached to the lid of the container, photo 4, being used to dry deactivate aluminum phosphide at the time of the inspection.	
Photo 7 Southern Corner of Lot Two 55-gallon open-top blue metal containers that were each full (approximately 6 inches of freeboard) of water with a 2% soap/surfactant solution. Both containers were labeled as "Empty – not in use" and were not located within secondary containment.